

~~LISITSYN, A.P.~~

Processes of recent precipitation formation over the Bering Sea.
Trudy Okean. kom. 3:45-51 '58. (MIRA 11:8)
(Bering Sea--Precipitation(Meteorology))

8.

AUTHORS: Lisitsyn, A.P. and Zhivago, A.V. SOV/10-58-6-9/21

TITLE: Contemporary Methods of Investigating the Geomorphology and Sediments of the Floor of the Seas of the Antarctic (Sovremennyye metody izucheniya geomorfologii i osadkov dna morey Antarktiki)

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya geograficheskaya, 1958, Nr 6, p 88-97 (USSR)

ABSTRACT: After stressing the difficulties of working under the conditions usually prevailing in Antarctica, the authors describe contemporary research methods on the geomorphology and sediments of the floor of the sea. The entire research can be divided into 4 basic items: 1) research on the geomorphology of the floor of the sea with sounding leads; 2) the study of geological structure and history of the floor of the sea from samples gathered by dredges, trawls and tubes; 3) the definition of the magnitude of loose sediments on the floor of the sea and the study of its relief

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SOV/10-58-6-9/21

Contemporary Methods of Investigating the Geomorphology and Sediments
of the Floor of the Seas of the Antarctic

by seismo-acoustic methods; and 4) the study of the present sedimentation processes based on the quantitative and qualitative composition of particles suspended in sea water. In item 1, sounding leads of the Soviet NEL-5 type (for a depth of 2,000 m) and Kelvin-Hughes MS-26-K sounding devices (for greater depths) were used. In item 2, an Okean-50 dredge and uniflow tubes constructed by Sysoyev-Kudiniv, or PGT-59 piston tubes designed by the Institute of Oceanology, AS USSR were used. In item 3, a specially designed (by the same institute) seismic station "Ekho-56" was used. It was designed to operate on waves reflected from one ship, on waves refracted or reflected from two ships, or between one ship and the shore.

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of the Floor of the Seas of the Antarctic

In item 4, research on suspended particles was done with a new semiauto-
matic installation for membranous ultra-filtration; plate-separators were
used. For sampling sea water, a special bathometer was constructed. The
water was then collected into special settling contrainers for the
necessary laboratory research. All these installations are described
in detail. There are 4 photos and 7 Soviet references.

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SOV/10-58-6-9/21

Contemporary Research Methods Into the Geomorphology and Sediments of the Antarctic Seas Bottom

ASSOCIATION: Institut geografii AN SSSR (The Institute of Geography of the AS USSR). Institut Okeanografii AN SSSR (The Institute of Oceanography of the AS USSR)

Card 4/4

AUTHOR:

Lisitsyn, A. P.
Lisitsyn, A. P.

20-2-48/60

TITLE:

On the Types of Marine Deposits Connected With Ice-Activity (O tipakh morskikh otlozheniy, svyazannykh s deyatel'nost'yu l'dov)

PERIODICAL:

Doklady AN SSSR, 1958, Vol. 118, Nr 2, pp. 373 - 376 (USSR)

ABSTRACT:

Sedimentary masses which develop due to a mixture of normal marine deposits with a material transferred on ice-masses are called marine-glacial (references 1 - 3). Thanks to recent investigations this inapposite designation may be abandoned and the deposits comprised by it may at least be subdivided into 3 independent types: 1) marine glacial-deposits, 2) iceberg deposits and 3) underwater moraines. The concentration, areal extension, mechanical and petrographic composition and other properties of these deposits are determined by their genesis. The marine glacial-deposits are connected with the activity of the ice of the sea, the ice of the river sometimes drifting far out in the high seas. Their distribution corresponds to that of drift-ice and extends to the northern part of the Black Sea and the Caspian Sea. The northern half of the Japanese, Okhotsk and Bering Seas, of the Arctic Ocean, as well as large areas of the Antarctic Ocean receive these deposits from the drift-ice. They occupy an area of dozens of millions of km². The

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material sediment is torn off the place of contact with the shore as well as torn away in the formation of ground-ice and then submerged into the ocean. The distribution of these deposits is not bound to any facies. The carrying capacity of 1 m³ ice amounts to 100 - 300 kg of elastic material. It is assorted to a high degree. The petrographic composition is closely connected with the composition of the coastal zone. The migration ways of the material reflect the main directions of the motions of drift-ice within long years and may in the Okhotsk and in the Bering Seas for annual ice be followed up to 500-100 km. The stone material from the delta of Lena and Yenisey comes into the central part of the Arctic basin and possibly transverses it. From the concentration of the stone materials in the deposits conclusions may be drawn on the motions of ice-fields on the surface. Fauna extremely seldom occurs in ice-transferred material. 2) The iceberg deposits are connected with the drift of the icebergs which often cover immense distances. Their filling with stone material takes place in the glaciers. The petrographic composition of the material is the more varied the larger areas feed the glacier and the more varied the rocks here are. Due to the content of stone-"flour" from the glaciers the coefficient of assortment is very low (7 - 23). Gigantic boulders may be converted. The iceberg material is close to that of the

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moraines. 3) Underwater moraines either form under subareal conditions and then become submerged or they directly form at the bottom of the sea near the end of the glacier. They are mostly morphologically distinctly recognizable and similar to the continental moraines. Very characteristic old moraines were discovered in the northern part of the Bering Sea, recent ones - in great numbers in the Davis Sea at the shelf of the East Antarctic. Their distribution is local, the granulometric composition monotonous, the splinters cornered. Gradual transitions exist among all 3 types of the above-mentioned deposits. Joint accumulations of all 3 types also occur. There are 1 figure, 1 table, and 8 references, 2 of which are Slavic.

ASSOCIATION: Institute for Oceanology AN USSR (Institut okeanologii Akademii nauk SSSR)

PRESENTED: April 13, 1957, by D. V. Nalivkin, Academician

SUBMITTED: April 13, 1957

AVAILABLE: Library of Congress

Card 3/3

LISITSIN, A. P.

"Suspended Ocean Substances,"
report to be submitted for the Intl. Cong. New York Citl, 31 Aug - 11 Sep 1959.

OCEANOGRAPHIC

(Inst. of Oceanology, Moscow)

LISITSYN, A. P.

"The Bottom Sediments of the Antarctic,"
report to be submitted for the Intl. Oceanographic Cong. New York City.
31 Aug - 11 Sep 1959.

(Insti. of Oceanology, Moscow)

ZENKEVICH, L.A.; LISITSYN, A.P.; UDINTSEV, G.B.

Ocean depths as a subject for study. Itogi nauki: Dost.ocean.
no.1:7-26 '59. (MIRA 12:10)
(Oceanography)

LISITSYN, A.P.

Bottom deposits of the Bering Sea. Trudy Inst. okean. 29:65-183
'59. (MIRA 12:12)
(Bering Sea--Deep-sea deposits)

LISITSYN, A.P.

Specific features of marine geological investigations in the
Antarctic. Trudy Inst. okean. 35:121-152 '59.

(MIRA 13:3)

(Antarctic regions--Oceanographic research)

LISITSYN, A.P.

Marine geological investigations in the tropics. Trudy Inst. okean.
35:153-174 '59. (MIRA 13:3)
(Tropics--Oceanographic research)

3 (9)
AUTHOR:

Lisitsyn, A. P.

SOV/20-126-4-48/62

TITLE:

New Data on the Distribution and the Composition of Suspended Substances in the Seas and the Oceans in Connection With Problems of Geology (Novyye dannyye o raspredelenii i sostave vzveshennykh veshchestv v moryakh i okeanakh v svyazi s vo-prosami geologii)

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 126, Nr 4, pp 863 - 866 (USSR)

ABSTRACT:

Suspended substances or suspensions are all particles of from 1 mm to 0.1 - 0.01 μ which are contained in marine water. In recent years a thorough investigation of the suspension became necessary. Until recently there was no reliable method of transporting large amounts of water from the bottom, or of extracting small particles from this water. In the Institute mentioned in the Association 2 new methods were developed for extracting masses and for investigating the suspension: a) a semi-automatic membrane ultrafiltration (Ref 1), and b) Separation by using industrial and laboratory separators (up to 150 t per 24 hours) (Refs 2,3). Moreover, immersible pumps were used which transport 5-7 t of water per hour from depths down to 200 m,

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Suspended Substances in the Seas and the Oceans in
Connection With Problems of Geology

and finally stainless bathometers of a volume of 200 l were used for the work at any depth. Thus, sufficient quantities of suspensions from almost all oceans and seas could be obtained for comprehensive investigations according to methods which were normally used for the investigation of the ground deposits (Ref 4). The material suspended in the marine water may be of a) terrigenous, b) aeolian (wind-blown), c) biogenic, and d) volcanogenic origin. The amounts of suspensions in the upper water layers fluctuate between 0.5 to 1.5 g/m³. In the zones of the phytoplankton-"flowering" and at the river mouths they attain 10-15 g/m³ or even more. In the seas this content is higher than in the oceans. The distribution of the suspension is thus in close relation with the climatic zones. Seasonal changes are expressed in the surface layers. The distribution of suspensions is irregular in the active layer. Beside the plankton organisms also the density of the sea water plays an important part in this connection. In the deep waters of the ocean the contents of suspension are low, no spot-like di-

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New Data on the Distribution and the Composition of
Suspended Substances in the Seas and the Oceans in
Connection With Problems of Geology SOV/20-126-4-48/62

stribution is observed. The suspensions increase towards the mainland.. This also holds for islands and under-water elevations. If the amount of a suspended particle is put equal to 1μ the total surface of all particles in a column under 1 m^2 will be $10,000 - 50,000 \text{ m}^2$. From this the effect of the geochemical processes becomes manifest: many elements are absorbed by the surface of the particles which brings about chemical changes in the composition of certain layers of marine water. In some cases the seized elements are given back; some elements are carried along from the water and imbedded in the ground deposit. In conclusion, the granulometric, material and chemical composition of the suspension is discussed. There are 9 references, 8 of which are Soviet.

ASSOCIATION: Institut okeanologii Akademii nauk SSSR (Institute of Oceanology of the Academy of Sciences, USSR)

PRESENTED: March 12, 1959, by N. M. Strakhov, Academician

SUBMITTED: March 3, 1959,

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LISITSYN, A. P.

"Marine Glacial Deposits of Recent Polar Regions and Glaciation Ages and Their Significance for Paleogeography."

report to be submitted for the Intl. Geographical Union, 10th General Assembly and 19th Intl. Geographical Congress, Stockholm, Sweden, 6-13 August 1960.

LIST 78YV, H. 7

PHASE I BOOK EXPLOITATION

SOV/5462

Sovetskaya antarkticheskaya ekspeditsiya, 1955.

Vtoraya morskaya ekspeditsiya na d/e "Ob'" 1956-1957 gg.; nauchnyye rezul'taty (Second Marine Expedition on the Diesel-Electric Ship "Ob'", 1956-57; Scientific Results) Leningrad, Morskoy transport, 1960. 163 p. (Series: Its: [Materialy] no. 7) 1,200 copies printed.

Sponsoring Agency: Mezhdunarodnyy geofizicheskiy god and Arkticheskiy i antarkticheskiy nauchno-issledovatel'skiy institut.

Ed. (Title page): I.V. Maksimov, Doctor of Geographical Sciences, Professor;
Ed.: Ye. I. Oksanova; Tech. Ed.: O. I. Kotlyakova.

PURPOSE: This book is intended for marine geologists and hydrologists.

COVERAGE: This is a collection of 9 articles on the hydrogeological and geological findings of the Second Soviet Marine Expedition, sponsored by the Arctic and Antarctic Scientific Research Institute of the Ministry of the Merchant Marine of the USSR as part of the International Geophysical Year program. The expedition, conducted on the diesel ship "Ob'" during 1956-57,
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Second Marine Expedition (Cont.)

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covered the entire Indian Ocean and the coast of Antarctica between 0 and 120° east longitude. The present volume, the seventh and last in a series on the Second Expedition, describes the work of the Expedition in investigating the following: The geomorphology of the sea bottom, by means of sounding devices; the geological structure and profile of the East Antarctic waters and the southern part of the Indian Ocean, through the collection of benthic deposits; the seismic-acoustical determination of the thickness of friable bottom deposits; analysis of surface and depth suspensions; the relief of the bottom of the Davis Sea and the area north of it; the Gauss-Kergellen underwater range; the continental slope and shelf of Antarctica between 20 and 100° east longitude and 40 and 70° south latitude; the geomorphology of Queen Maud Land and Queen Mary Coast; glacier exaration; seasonal quantitative and qualitative longitudinal and latitudinal distribution of plankton in the Antarctic sector of the Indian Ocean; arctic fauna, including whales, seals, birds, fish, marine parasites, and microorganisms. The articles are written by members of the Institut okeanologii AN SSSR (Institute of Oceanology AS USSR); Institut geografii AN SSSR (Institute of Geography AS USSR), Zoologicheskii institut AN SSSR (Zoological Institute AS USSR), and Institut rybnogo khozyaystva i okeanografii (Institute of Fish Industries and Oceanography). No personalities are mentioned. Each article is accompanied by references.

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Second Marine Expedition (Cont.)

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143

Lebedeva, M.N. Microbiological Research

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AVAILABLE: Library of Congress (G860.S58)

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JA/dwm/mas
9-20-61

PHASE I BOOK EXPLORATION: 20V/5331

International Geological Congress. 21st, Copenhagen, 1960.

Morskaya geologiya (Marine Geology) Moscow, Izd-vo AN SSSR, 1960. 205 p. 2,500 copies printed. (Series: Doklady sovetskikh geologov, problema 10)

Editorial Board: P. I. Buzubayev, Ed.: M. I. A. V. Zaitsev, V. P. Zerkovich and G. B. Udintsev; Ed. of Publishing House: V. S. Sheynman; Tech. Ed.: V. Karpov.

PURPOSE: This book is intended for geologists and oceanographers.

COVERAGE: The book contains 18 articles representing the reports given by Soviet geologists at the 21st. International Geological Congress. Individual articles deal with the bottom topography, sedimentation, and tectonics of oceans (Western Pacific and Southern Indian), as well as the geomorphology and tectonics of the Black and Caspian Seas and Soviet sectors of the Baltic. An English résumé accompanies each article. No personalities

Erzyova, M. N.; I. Ye. Mikhel'son, G. B. Udintsev, I. B. Andreyeva, A. P. Lisitsyn, and Yu. I. Kopylov. Results of Seismic-Geological Investigations of the Barents Sea Under Seas and Oceans 35

Saidova, Ed. M. Stratigraphy of Sediments and the Paleogeography of the Northwestern Pacific and the Far Eastern Seas of the USSR According to Sea-Bottom Foraminifers 59

Lisitsyn, A. P. Formation of Sediments in the Southern Pacific and Indian Oceans 69

Lapina, N. M., and N. A. Belov. Bottom Sedimentation Conditions in the Arctic Ocean 88

Godcharov, V. P., and Yu. P. Kopylov. Bottom Geomorphology and Tectonic Problems of the Black Sea 94

Koloyev, V. P., L. S. Kulakova, and G. V. Azopova. Relief and Recent Floor Structure of the Southern Caspian Sea 105

Gordhanovich, D. Ye. Recent Shelf Deposits in the Marginal Seas of Northeast Asia 116

Klenova, M. V. The Geology of the Barents Sea 123

Gorbukova, T. I. Sediments in the Norwegian Sea 132

Tsgerava, M. V. Study of the Diagenesis of Some Marine Sediments 140

Zerkovich, V. P., O. K. Leont'yev, and Ye. M. Neveskiy. The Influence of the Eustatic Post-glacial Transgression of the Development of the Coastal Zone of Soviet Seas 154

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Budakov, V. I., A. S. Ionin, P. A. Kaplin, and V. S. Medvedev. Recent Vertical Movements of Seashores in the Soviet Union 175

Leont'yev, O. K. Types and Formation of Lagoons on Recent Seashores 188

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(2)

BEZRUKOV, P.L.; LISITSYN, A.P.

Classification of bottom sediments in recent seas. Trudy Inst.ocean.
32:3-14 '60.

(MIRA 13:6)

(Deep-sea deposits)

LISITSYN, A.P.; GLAZUNOV, V.A.

Design and use of the 200-liter bathometers. Trudy Inst. okean.
44:112-122 '60. (MIRA 14:2)

(Bathometer)

LISITSYN, A.P.; BARINOV, L.P.

The new large-diameter corer "Antarctica." Trudy Inst. okean.
44:123-133 '60. (MIRA 14:2)

(Deep-sea sounding)

Papers submitted for the 1964 Pacific Science Congress, Honolulu, Hawaii 21 Aug-6 Sep 1961.

[illegible]

LISITSYN, A. P.

"Bottom sediments in the Antarctic."

To be submitted for the 10 th Pacific Science Congress, Honolulu, 21 Aug - 6 Sep 1961.

Institute of Oceanology.

KRYLOV, A.Ya.; LISITSYN, A.P.; SILIN, Yu.I. [Silins, J.I.]

Significance of the argon - potassium ratio in oceanic silt. Izv.
AN SSSR.Ser.geol. no.3:87-100 Mr '61. (MIRA 15:2)

1. Radiyevyy institut AN SSSR, Leningrad i Institut okeanologii
AN SSSR, Moskva.

(Ocean bottom--Deep-sea deposits)
(Geological time)

STARIK, I.Ye.; ZHARKOV, A.P.; LISITSYN, A.P.

Rate of recent and late Quaternary sedimentation in the southern part of the Pacific Ocean according to the data of the radiocarbon method. Dokl. AN SSSR 139 no.4:970-973 Ag '61. (MIRA 14:7)

1. Radiyevyy institut im. V.G. Khlopina AN SSSR i Institut okeanologii AN SSSR. 2. Chlen-korrespondent AN SSSR (for Starik).
(Pacific Ocean—Sedimentation and deposition)
(Geological time)

SAIDOVA, Kh.M.; LISITSYN, A.P.

Stratigraphy of sediments and paleogeography of the Bering
Sea in the Quaternary period. Dokl. AN SSSR 139 no.5:1221-
1224 Ag. '61. (MIRA 14:8)

1. Institut okeanologii AN SSSR.
(Bering Sea--Sediments (Geology))

ZHIVAGO, A.V.; LISITSYN, A.P.; UDINTSEV, G.B.

Problems in marine geology and geomorphology. Okeanologiya 2
no.3:469-488 '62. (MIRA 15:7)
(Pacific Ocean--Submarine geology)

LISITSYN, A.P.; UDINTSEV, G.B.

Oceanographic ships. Okeanologiya 2 no.3:514-526 '62.
(MIRA 15:7)
(Oceanographic research ships)

LISITSYN, A.P.

Conference on Modern Sea Sediments. Sov.g ol. 5 no.2:151-155 P '62.
(MIRA 15:2)

1. Institut okeanologii AN SSSR.
(Deep-sea deposits)

LISITSYN, A.P.

Suspended matter in the ocean. Trudy Okean kom. 10 no.3:9-37
162. (MIRA 15:3)
(Ocean) (Sedimentation and deposition)

S/169/62/000/009/100/120
D228/D307

AUTHOR: Lisitsyn, A. P.

TITLE: Antarctica's bottom deposits

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 9, 1962, 21, abstract 9V115 (Tr. Okeanogr. komis., AN SSSR, 10, no.3, 1962, 70-78)

TEXT: The scheme of distribution of the bottom deposits of Antarctica's Indian and Pacific Ocean sectors is given. It shows that in this part of the world ocean sediment-formation is subject to strict climatic zoning. The sediment-forming conditions in Antarctica (like the water areas off Greenland) differ in their great originality: the absence of liquid run-off from the land and the enormous role of glacial discharge, the weak development of chemical weathering and the negligible role of chemical precipitation, the slight development of coastal abrasion, the great role of phytoplankton (especially of diatoms), the complexity and youth of the underwater topography, and the wide development of Recent and

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Antarctica's bottom deposits

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Quaternary volcanism in some regions. In the zone adjoining the continent's coasts icebergs and sea ice are leading sedimentation factors; they gradually give way to diatoms with increasing distance northwards from the coasts and to plankton foraminifera still farther to the north. Iceberg sediments are a unique form of bottom sediment with specially characteristic features. In their basic part they represent the granulation product of Antarctica's constituent bedrocks. Their typical feature is the presence of rough stony angularly-clastic material and unrounded sandy-silty particles. Iceberg sediments form a continuous belt 200 - 700 miles wide. Diatom sediments (mainly the remains of siliceous planktonic diatom shells) form a belt, 500 - 1200 miles in width, at a certain distance from the mainland. Granulometrically they pertain mostly to clayey and silty-clayey muds, in which the biogenic and the mineral part comprises 70 - 90% and 30 - 10% respectively. Volcanic sediments, confined to regions where a typical volcanic relief has evolved, are widely developed in the zone of diatom muds. Foraminiferal sediments spread northwards from the diatom mud zone and are found to depths of about 4600 - 4900 m. Foraminiferal sediments

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Antarctica's bottom deposits

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are not encountered at great depths in connection with the rapidly-elapsing process of their solution. Here occurs red abyssal clay, formed mainly at the expense of mineral matter present in foraminiferal muds; the author regards these clays as poligenic sediments. It should be noted that on submarine rises in the diatom mud zone there are foraminiferal sediment accumulations, which penetrate far to the south along these rises. 14 references. [Abstracter's note: Complete translation.] ✓

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LISITSYN, A.P.; PETELIN, V.P.; SKORNYAKOVA, N.S.; ROMANKEVICH, E.A.

BEZRUJKOV, P.L.;

Map of the Pacific Ocean Sediments

Geochemistry of Suspended Matter without co-authors

Report submitted for the 13th General Assembly, IUGG (Oceanography),
Berkeley, California, 19-31 Aug 63.

LISITSYN, A.P., kand.geol.-mineral.nauk; UDINTSEV, G.B., kand.geograf.nauk

Present state and tasks of the geology of the world oceans. Vest.
AN SSSR 33 no.7:21-32 J1 '63. (MIRA 16:8)
(Submarine geology)

KOZLOVA, Ol'ga Georgiyevna; LISITS N, A.P., otv. red.; PETELIN,
V.P., red.

[Diatoms in the Indian and Pacific sectors of the
Antarctic] Diatomovye vodorosli Indijskogo i Tikhoo-
keanskogo sektorov Antarktiki. Moskva, Izd-vo "Nauka,"
1964. 167 p. (MIRA 17:6)

KUZNETSOV, Yu.V.; LEGIN, V.K.; LISITSYN, A.P.; SIMONYAK, Z.N.

Radioactivity of ocean suspensions. Part 1: Thorium isotopes
in ocean suspensions. Radiokhimiia 6 no.2:242-254 '64.
(MIRA 17:6)

LISITSYN, A.P.

Seminar on the terrigenous sedimentation and geochemistry of iron
and manganese in the Pacific Ocean. Lit. i pol. iskop. no.3:152-
155 My-Je '65. (MIRA 18:10)

1. Institut okeanologii AN SSSR, Moskva.

LISITSYN, A.P., kand. biolog. nauk

Age-related changes in the weight of some endocrine glands in
adult silver foxes. Izv. TSKHA no.1:217-225 '63. (MIRA 16:7)

(Silver fox)

(Endocrine glands)

LISITSYN, A. P.

Cand Biol Sci - (diss) "Significance of growth in raising silver-black foxes." Moscow, 1961. 19 pp; (Academy of Sciences USSR, Inst of Animal Morphology imeni A. N. Severtsov); 200 copies; price not given; (KL, 6-61 sup, 208)

LISITSYN, A.P., assistant

Age changes in the blood of mature female silver foxes [with summary
in English]. Izv. TSKhA no.5:216-221 '60. (MIRA 13:11)
(Silver fox) (Blood)

LISITSYN, A.V., inzh.

Using series A 3100 automatic machines for the protection of
motors auxiliary power station equipment. Elek.sta. 31 no.1:
85-86 Ja '60. (MIRA 13:5)
(Automatic control) (Electric motors)

LISITSYN, A.V., inzh.

Determination of short-circuit currents in the intermediated
branch points of a complex network. Izv. vys. ucheb. zav.;
energ. 7 no.10:1-7 O '64. (MIRA 17:12)

1. Moskovskiy ordena Lenina energeticheskiy institut.
Predstavlena kafedroy elektricheskikh stantsiy.

LISITSYN, A. Ye. Cand Geol-Min Sci -- (diss) "Conditions of the formation
of rock-crystal deposits in the eastern slope of the southern Urals." Mos, 1957.
Geology and
16 pp (Min of Mineral Conservation. All-Union Sci Res Inst of Mineral Raw

LISITSYN, A.Ye.; MALINKO, S.V.

Composition of liquid inclusions in rock crystals of the Southern
Urals. Trudy VNIIP 1 no.2:161-163 '57. (MIRA 12:3)
(Ural Mountains--Quartz crystals)

LISITSYN, A.Ye.; MALINKO, S.V.

Characteristics of mineral-forming solutions based on studies
of liquid inclusions in quartz. Geokhimiia no.9:789-795 '61.
(MIRA 15:2)

1. All-Union Scientific Research Institute of Mineral Raw
Material, Moscow.
(Ural Mountain region—Quartz)

LISITSYN, A.Ye.

Nifontovite, a new boron mineral. Dokl. AN SSSR 139 no.1:188-190
Jl '61. (MIRA 14:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut mineral'nogo
syr'ya. Predstavleno akademikom D.S. Korzhinskim.
(Ural Mountains--Calcium borates)

LISITSYN, A.Ye.; KHITROV, V.G.

Distribution of boron in minerals of some igneous and metamorphic rocks in the Central Urals based on the microspectroscopic analysis. Geokhimiia no.3:259-268 '62. (MIRA 15:4)

1. All-Union Scientific Research Institute of Mineral Raw Material, Moscow.

(Ural Mountains--Boron)

LISITSYN, A.Y.

Some geochemical characteristics of beryllium in the formation process
of calcareous skarns in the Urals. Min.syr'ie no.7:139-146 '63.
(MIRA 16:9)

(Ural Mountains—Beryllium)
(Ural Mountains—Rocks—Analysis)

LISITSYN, A.Ye.; MALINKO, S.V.

Genesis of endogenetic boron mineralization in the Urals. Min.syr'ie
no.8:34-44 '63. (MIRA 17:9)

LISITSYN, A.Ye.; MALINKO, S.V.; RUMYANTSEV, G.S.

New finds of frolovite and pentahydroborate. Dokl. AN SSSR
164 no.1:171-173 S '65. (MIRA 18:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut mineral'nogo
syr'ya i Moskovskiy gosudarstvennyy universitet. Submitted
May 17, 1965.

LISITSYN, A.Ye.

Geological characteristics of the limestone-skarn deposits of
boron. Geol. rud. mestorozh. 7 no.3:25-30 My-Je '65. (MIRA 18:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut mineral'nogo
syr'ya, Moskva.

LISITSYN, B.

Ensure the even movement of funds in financing capital construction.
Fin.SSSR 16 no.10:67-70 O '55. (MIRA 9:2)

(Crimea Province--Banks and banking)

LISITSYN, B.

More attention to increasing efficiency in the system of
the Industrial Bank. Fin.SSSR 18 no.8:52-55 Ag '57. (PLRA 10:8)

1. Predsedatel' komissii po ratsionalizatsii i izobretatel'stvu
Ukrainskoy kontory Prombanka.
(Banks and banking)

LISITSYN. B.

Hidden potentialities for reducing working capital norms. Fin.
SSSR 19 no. 7:32-34 J1 '58. (MIRA 11:8)

1. Zamestitel' upravlyayushchego Ukrainskoy kontoroy Prombanka.
(Ukraine--Construction industry--Finance)

LISITSYN, B.

Bank and the planning of capital investments. Fin. SSSR 23
no.3:52-59 Mr '62. (MIRA 15:3)

1. Zamestitel' upravlyayushchego Ukrainskoy respublikanskoy
kontoroy Stroybanka.

(Ukraine—Construction industry--Finance)

(Ukraine—Banks and banking)

LISTSYN, B.

Put projects in the final stages of construction at the center of
attention. Fin.SSR 37 no.4:26-30 Ap '63. (MIRA 16:4)

1. Zamestitel' upravlyayushchego Ukrainskoy kontoroy Stroybanka.
(Ukraine--Banks and banking)
(Ukraine--Construction industry--Finance)

LIVSHITS, Ya. D. [Livshyts', IA. D.] (Kiyev); LISITSYN, B. M. [Lysytsyn, B. M.] (Kiyev)

Determining flexures of prestressed reinforced-concrete slab.
Prykl. mekh. 9 no.1:99-102 '63. (MIRA 16:4)

1. Kiyevskiy avtodorozhnyy institut.

(Prestressed concrete construction—Testing)

1. LISITSYN, B. P.

2. USSR (600)

4. Bird's foot trefoil

7. Experiment in the cultivation of bird's-foot trefoil. Dost. sel'khoz. no. 4, 1952

9. Monthly List of Russian Accessions, Library of Congress, January 1953. Unclassified.

LISITSYN, B.

Lotus

Bird's-foot trefoil in fodder crop rotation. Kolkh. proizv., 12, No. 3, 1952.

Monthly List of Russian Accessions, Library of Congress, June, 1952.

Unclassified.

GODES, E.G., inzh.; SHASHKOV, S.A., kand. tekhn. nauk; BAUM, V.A., inzh.;
SOROKIN, P.P., kand. tekhn. nauk, retsenzent; LISITSYN, B.V.,
inzh., retsenzent; BESPALOV, I.V., inzh., nauchnyy red.; PENOVA,
Ye.M., red. izd-va; VORONETSKAYA, L.V., tekhn. red.

[Reinforcing river banks near factory grounds]Ukreplenie beregov
rek na zavodskikh territoriyakh; proizvodstvennyi opyt. Lenin-
grad, Gos. izd-vo lit-ry po stroit., arkhitekt. i stroit. materialam,
1961. 134 p. (MIRA 14:10)

(Hydraulic engineering)

DALMATOV, Boris Ivanovich, doktor tekhn. nauk; LISITSYN, B.V., red.

[Practical calculation of the settling of a foundation by the
method of the limited thickness of a compressible formation]
Prakticheskii raschet osadki fundamenta metodom ogranichennoi
moshchnosti szhimaemoi tolshchi. Leningrad, 1965. 31 p.
(MIRA 18:8)

LISITSYN, D.A. (Moskva)

~~Automatic system for making photographs of the experimental~~
pattern layout. Shvein.prom. no.4:30-32 JI-Ag '63.
(MIRA 16:9)

LISITSYN, D.A. (Moskva)

Storage of pattern on stands with automatic push button call for
the needed set. Shvein. prom. no.6s21-22 N-D '64 (MIRA 18s2)

LISITSYN, D.A.; DANILOV, N.M. (Moskva)

Machinery for the processing of "porolon" fabrics in the manufacture of clothing. Shvein.prom. no.4:28-29 JI-Ag '63.
(MIRA 16:9)

LEBESYN, G. I. Moskva)

Mechanized stand for the storage of ready garments. Shvein.prom.
no. 4326-28 JI-Ag '64. (MIRA 17:10)

LISITSYN, D. I.

PHASE I BOOK EXPLOITATION SOV/5460

Leningradskiy metallicheskiy zavod. Otdel tekhnicheskoy informatsii.

Nekotoryye voprosy tekhnologii proizvodstva turbin (Certain Problems in the Manufacture of Turbines) Moscow, Mashgiz, 1960. 398 p. (Series: Its: Trudy, vyp. 7) Errata slip inserted. 2,100 copies printed.

Sponsoring Agency: RSFSR. Sovet narodnogo khozyaystva Leningradskogo ekonomicheskogo administrativnogo rayona, Upravleniye tyazhelogo mashinostroyeniya, and Leningradskiy dvazhdy ordena Lenina metallicheskiy zavod. Otdel tekhnicheskoy informatsii.

Ed. (Title page): G. A. Drobilko; Editorial Board: Resp. Ed.: G. A. Drobilko, B. A. Glebov, A. M. Mayzel', and M. Kh. Mernik; Tech. Ed.: A. I. Kontorovich; Managing Ed. for Literature on Machine-Building Technology: Ye. P. Naumov, Engineer, Leningrad Department, Mashgiz.

PURPOSE: This collection of articles is intended for technical personnel in turbine plants, institutes, planning organizations, as well as for production innovators.

Card 1/12

Certain Problems (Cont.)

SOV/5460

COVERAGE: The experience of the LMZ (Leningradskiy metallicheskiy zavod - Leningrad Metalworking Plant) in the manufacture of modern large-capacity turbines is presented. Methods for the rationalization of basic manufacturing processes and for the mechanization and automation of manual operations are given. Descriptions of attachments and tools designed by LMZ for improving labor productivity and product quality are provided, and advanced inspection methods discussed. References accompany some articles. No personalities are mentioned. There are 26 references: 25 Soviet and 1 English.

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I. NEW PROCESSING METHODS IN MACHINING
AND ASSEMBLY

Gamze, Z. M. [Engineer]. The Organization, Methods, and Trends in Efforts for Improving the Easy Manufacturability of Designs for Large Hydraulic Turbines
Card-2/12

5

Certain Problems (Cont.)

SOV/5460

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12

CO

The carbohydrate complex of hay from different grasses.
 D. L. Lindsay. *Bull. Applied Botany, Genetics, Plant
 Breeding* (U. S. S. R.) Ser. A, No. 19, 87-91(1936).
 The carbohydrate content—mannose, sucrose, maltose,
 dextrin, levulose, starch and hemicellulose, crude cellulose,
 and unknown N-free ext.—is reported on the following
 plants: *Festuca pratensis*, *Poa pratensis*, *Alopecurus
 pratensis*, *Phleum pratense*, *Arrhenatherum elatius*, *Dac-
 tylis glomerata*, *Lolium perenne*, *Trifolium pratense*, *Lotus
 corniculatus*, *Galga orientalis*, *Agrostis alba*. J. S. J.

1ST AND 2ND CODES

PROCESSES AND PROPERTIES INDEX

3RD AND 4TH CODES

COMMON ELEMENTS

COMMON VARIANTS INDEX

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

1ST CODE

2ND CODE

3RD CODE

4TH CODE

5TH CODE

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7TH CODE

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118

Sugars in the assimilating leaves. 1. Participation of glucose and fructose in the processes of synthesis and breakdown in leaves. D. I. Lialtyn, *Biohimiya* 2, 767-75 (1977). -- During the respiration of leaves glucose, and not fructose, is largely consumed. The synthesis of sucrose proceeds at a faster pace from fructose than from glucose. Water-sol. carbohydrates and starch are synthesized at about the same, slow rate from glucose as from fructose. In vacuum infiltration expts., glucose is able to penetrate the stems much more rapidly than fructose. H: Cohen

Lab. of Plant Biochemistry, Vinn, Moscow

C

Sugars of the assimilating leaves. II. Proportion of glucose and fructose in the assimilating leaves. D. I. Lichstein-Biochimica 2, 908-16(1937); J. C. A-98, 2771.—The polarimetric method is not suitable for the detn. of the glucose and fructose in leaves, since the "sucrose fraction" and the "maltose fraction" often contain a complex mixt. of optically active bodies. Fructose predominates in the green assimilating leaves. The ratio of glucose to fructose does not change considerably when the ratios, amt, monoses/dry wt., or amt. of monoses/% of sucrose change.

H. Cohen

LAB. OF PLANT BIOCHEM, Chem, sect. VIEM

ASH-SLA METALLURGICAL LITERATURE CLASSIFICATION

[illegible]

Physiology of sugar accumulation in sorghum and corn stems. D. L. Laitlyn. Bull. soc. naturalistes Moscou, Sect. biol. 46, 331-7 (in French 358) (1937); cf. C. A. 32, 2171¹. Leaves of corn contain considerably more active peroxidase and less active catalase than sorghum leaves. Amylase is very active in sorghum and less active in corn. H. Cohen

Ca

110

Sugars of assimilating leaves. III. Glucose and fructose in the petioles and veins of leaves. B. I. Lisitsyn. Biokhimiya, 3, 110-19(1938); cf. C. A. 32, 2600-2607. The ratio glucose/fructose was higher in the petioles and veins than in the leaves of all the plants investigated. The glucose/fructose ratio in the vascular bundles was equal or superior to that in the leaves, and always inferior to the ratio in the parenchymatous portion of petioles and veins.
H. Cohen

LAB. OF PLANT BIOCHEMISTRY, Chem. SALT. of VIETNAM

ASH-SLA METALLURGICAL LITERATURE CLASSIFICATION

Sugars of assimilating leaves. IV. The "sucrose fraction" and "maltose fraction" of leaves. D. I. Liscovsk (Hochheim) 2, 491-9 (1938); cf. C. A. 32, 4191. Poly-saccharides which are hydrolyzed to monos by 2% HCl at 70° for 5 min. consist of what is known as the "sucrose fraction"; the more difficultly hydrolyzable sugars are grouped together as the "maltose fraction." The "sucrose fraction" may at times consist of a mixt. of fructosides, glucose and glucosides. No maltose was detected in the "maltose fraction," which evidently is composed of various glucosides. H. Cohen

LAB. OF PLANT Biochemistry, Chem. Sect. Univ. Moscow

ka

Dynamics of nitrogenous bodies and proteolytic enzymes in sunflower leaves on withering. D. I. Lintsyn.
Bull. soc. naturalistes Moscow, Sect. biol. 47, 188-64
(1938); cf. C. A. 32, 2171'. During the withering of the sunflower, there is an increase in the activity of the proteases; the water-sol. protein content decreases, whereas the nonprotein nitrogenous substances increase. H. Cohen

ASD-SLA METALLOGICAL LITERATURE CLASSIFICATION

11A

CA

PROCESSES AND PROPERTIES INDEX

The effect of phlorizin on the sugar transformation in leaves. D. I. Laityn. *Biokhimiya* 6, No. 4/5, 482-6 (1941) (English summary). — Monoses mixed with a 0.005 M soln. of phlorizin were infiltrated into the leaves of *Arctium lappa*, *Crataegus* sp. and *Tussilago farfara*. In the 2 former, phlorizin inhibited the synthesis of sucrose. It failed to inhibit its synthesis in *Tussilago farfara*. Where the synthesis of sucrose was inhibited, the monoses were utilized for other metabolic purposes. It is possible that the sucrose synthesis was arrested because of that fact. No accumulation of difficultly hydrolyzable sugars was observed in the leaves poisoned by phlorizin. M. Howch

CHAIR OF CHEMISTRY OF THE MOSCOW ZOOTECNICAL INSTITUTE

ASM-55A METALLURGICAL LITERATURE CLASSIFICATION

LISITSYN, D. I.

"Gutta-percha in the bark of roots and trunks
of spindle trees, *Evonymus verrucosa* Scop. and
Evonymus velutina F. et M.," 8, No. 4, 1943.

The Institute of Rubber and Gutta-Percha Plants
and the Moscow Zootechnical Institute, -1943-.

LISITSYN, D. I.

"On the interconversion of sucrose and starch
in the plant cell," 8, No. 4, 1943.

From the Moscow Zootechnical Institute, -1943-.

CA

7

Semimicro method for sugars in plants. D. I. Lissava
(Moscow Fur Inst.). *Biokhimiya* 13, 163-7 (1930).—
A modified Bertrand method is used. In an Erlenmeyer
flask place 20 ml. of the soln. contg. 0.8-40 mg. of sugar.
Add 5 ml. of 7.2% soln. CuSO_4 soln. and 5 ml. of a soln.
contg. 180 g. Rochelle salt, and 60 g. NaOH in 500 ml.
 H_2O . Heat to boiling, and boil exactly 2 min. Filter by

suction through an asbestos or glass filter, and wash 3-
times with hot water. Dissolve the ppt. in 10 ml. of an
acid soln. of NH_4 ferric alum prepd. as in Bertrand's
method. Filter through the same filter, wash 3 times with
cold water, and titrate with a 0.003 N KMnO_4 soln.
In a mixt. of glucose and fructose, both are detd. as above,
then in another sample the glucose is oxidized by 1, and
the fructose then detd. by the above method. H. P.

CA

110

The role of labile glucosides in plants. D. I. Lelitsyn
(Pur Inst., Moscow). *Biokhimiya* 17, 320-6 (1952).
The leaves of the lilac (*Syringa vulgaris*) and of the ash
(*Fragaria exoniensis*) are unusual in that the labile glucosides
(I) predominate over saccharose. I were completely hy-
drolyzed when treated for 5 min. with 2% HCl at 70°.

CHAIR OF CHEMISTRY OF THE MOSCOW PUR INST

Emulsin hydrolyzed only a small fraction of I, since the leaves contained an emulsin inactivator. For analysis, the leaves were steamed, dried, and extd. with H₂O and NH₄ at pH 6 by heating on the boiling water bath for 0.5 hr. A part of the filtered ext. was purified with neutral Pb(OAc)₂, and after filtration and removal of excess Pb with phosphate, was used for the detn. of glucose, fructose, and saccharose. Another part of the ext. was boiled for 5 min. with 2% HCl at 70°, neutralized with NaOH, purified with neutral Pb(OAc)₂, and used for the detn. of glucose and fructose. The difficultly hydrolyzable carbohydrate fraction was detd. by boiling the aq. ext. for 3 hrs. with 2% HCl. Since maltose and starch were absent, and a ppt. of the aglycons formed, this fraction was judged to be that of the difficultly hydrolyzable glucosides. The leaves of the lilac contained (% of dry substance) fructose 2.0, glucose 1.0, saccharose 1.0, I 6.2, and difficultly hydrolyzable glucosides 4.4. A study was made of the diurnal variation in the accumulation of sugars and glucosides in the leaves of the lilac and ash. No saccharose was formed during the daylight hrs., as is usually the case. Starch was always absent. The amt. of I in the leaves of the lilac increased during the daytime. No considerable variations were observed in the difficultly hydrolyzable glucoside fraction. The absence of variations in the sugar content during daylight is probably accounted for by their rapid transformation into other compds.
H. Priestley

LISITSYN, D.I.

Activity of carbohydrase in leaves of "glucoside" plants. Biokhimiya
18, 188-90 '53. (MLRA 6:4)
(CA 47 no.17:8842 '53)

1. Fur Inst., Moscow.

LISITSYN, D.I.

Seasonal variations of sugars in "glucoside" plants. Biokhimiia 19 no.2:
150-155 Mr-Apr '54. (MLRA 7:6)

1. Kafedra khimii Moskovskogo pushno-mekhovogo instituta, Moscow.
(Sugars)

LISITSYN, D.I.

114-11-7/10

AUTHOR: Lisitsyn, D.I., Engineer, and Aristov, A.V., Engineer.
TITLE: The Technology of Production of Steam and Water Turbines at the Leningrad Metal Works. (Tekhnologiya proizvodstva parovykh i gidravlicheskh turbin na Leningradskom Metallicheskom Zavode.)

PERIODICAL: Energomashinostroyeniye, 1957, Vol.3, No.11, pp.31-35, (USSR)

ABSTRACT: The article commences with a general review of the development of turbine manufacture at the works from about 1924. The development of the factory was much hindered by the war. The works maintained contact with the design office which was evacuated to the Ural but which, in 1943, commenced preparations for the restoration of turbine production and commenced the design of new steam and hydraulic turbines. In 1945, the works began to manufacture turbines to these new designs. All the patterns and rigs made before 1941 were destroyed during the war and so new drawings were prepared without reference to existing patterns and tools. This facilitated the extensive introduction of advanced production methods. The works was soon producing turbines of up to 100 MW and later turbines of 150 MW and gas turbines with a useful output of 12 MW. At the same time, water turbines were produced including those of the Kaplan type for

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The Technology of Production of Steam and Water Turbines at the Leningrad Metal Works.

the Kuybyshev and Stalingrad Power Stations with a unit output of 126 MW at a maximum head of 30 m.

Whilst the machines were being designed and manufactured, plans were made to reconstruct the main workshop so as to increase the output of turbines by a factor of two or three without increasing the amount of space taken up.

New methods of manufacturing steam and water turbines were developed. Important changes were made in the methods of manufacturing water turbines by the use of specialised machine tools which greatly increased the productivity of labour. Development of the technology of manufacture of steam and water turbines is along the following main lines.

The shape of the rough parts is being made as near as possible to that of the finished parts, for example, by the use of hot stampings in the manufacture of blades.

Welded construction is being particularly widely used. In steam turbines welded and welded-cast constructions are being used in the high-pressure cylinders, the exhaust parts of the low pressure cylinders, and in high pressure discs. In water turbines, welding is being used in stators, in the working wheel chambers in the turbine covers, in the upper and lower rings of the guide vane apparatus and elsewhere. Fig. 1 illustrates the

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The Technology of Production of Steam and Water Turbines at the Leningrad Metal Works.

use of electro-slag welding of shafts for water turbines.

There is a strong tendency to make parts to close tolerances so that they are replaceable and do not require hand fitting. This principle is being extended to the manufacture of steam turbine rotors and also to certain parts of water turbines which have to be despatched for erection six months before delivery of the turbine.

Laborious and manual work has been mechanised to a very large extent. For example, the blades of water turbines are now machined whereas formerly they used to be shaped by hand. A machine tool used for this purpose is illustrated in Fig.3. Grinding of blades has also been mechanised as will be seen from the machine illustrated in Fig.4. The grinding of spherical surfaces on the bearings of steam turbines, that was formerly a manual operation, is now done by machine, as shown in Fig.5. Improvements have been made in the hydraulic testing of steam turbines by the use of special seals to blank off apertures in the cylinders. This is illustrated in Fig.7.

Many small tools and jigs have been improved; an example of this is the use of a special roller cutter to generate large threads illustrated in Fig.8.

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114-11-7/10

The Technology of Production of Steam and Water Turbines at the
Leningrad Metal Works.

Some idea of the economy of labour that has been achieved in
manufacture of turbines will be found from the tabulated figures
for labour costs of standard turbines over the last ten years.
There are 7 figures and 1 table.

AVAILABLE: Library of Congress

Card 4/4

LISITSYN D.I.

I-2

USSR/Physiology of Plants - Respiration and Metabolism.

Abs Jour : Ref Zhur - Biol., No 3, 1958, 10370

Author : Lisitsyn, D.I.

Inst : Moscow Branch of the Moscow Veterinary Academy.

Title : Transformation of Monosaccharides in Leaves of "Glucoside" Plants.

Orig Pub : Fiziol. rasteniy, 1957, 4, No 1, 33-37

Abstract : Two hours after ash and lilac leaves had been impregnated with 0.14 and 0.22 M glucose and fructose solutions the saccharose content was determined (through use of invertase) and was the content of unstable glucosides and fructosides (by adding glucose and fructose after a five-minute hydrolysis with 2%, 70°, HCl solution). The monoses were quickly used up by the leaves. The "fraction of saccharose" increased through energetic synthesis of the

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D. I. LISITSIN, M. S. BARDINSKAYA, M. I. SMIRNOVA-IKONNIKOVA, Yu. V. PERUANSKIY,
G. A. LUKOVNIKOVA and V. I. IVANOV

"On carbohydrates of plant origin."

The Chemistry and Metabolism of Carbohydrates in Animal and Plant Organisms.
Conference in Moscow. January 28 to January 30 1958.

(VAN SSSR No. 6, 58)

LISITSYN, D.I.

Role of saccharase in leaves of glycoside-bearing plants [with summary
in English]. Biokhimiia 23 no.3:395-400 My-Je '58 (MIRA 11:8)

1. Kafedra khimii Vsesoyuznogo sel'skokhozyaystvennogo instituta
saohnogo obrazovaniya, Moskva.

(GLYCOSIDES,

saccharase in leaves of glycoside-bearing plants (Rus))

(CARBOHYDRASES,

same (Rus))

LISITSYN, D.I.

Dynamics of carbohydrate and fat concentration in maturing and germinating ash seeds. Biokhimiia 24 no.5:850-854 S-0 '59. (MIRA 13:2)

1. Kafedra khmii Vsesoyuznogo sel'skikhozyaystvennogo instituta zaochnogo obrazovaniya, Moskva.
(SEEDS) (CARBOHYDRATES) (OILS AND FATS)

L 36177-66 EWT(m)/EWP(j)/T IJP(c) RM/DJ

ACC NR: AP6014267

SOURCE CODE: UR/0153/009/001/0126/0127

AUTHOR: Gridunov, I. T.; Chirkov, N. M.; Pryakhina, S. F.; Lisitsyn, D. M.; Raspopov, L. N.

ORG: Rubber Technology Department, Moscow Institute of Fine Chemical Technology im. M. V. Lomonosov (Kafedra tekhnologii reziny, Moskovskiy institut tonkoy khimicheskoy tekhnologii)

TITLE: Use of atactic polypropylene in Nairit rubbers

SOURCE: IVUZ. Khimiya i khimicheskaya tekhnologiya, v. 9, no. 1, 1966, 126-127

TOPIC TAGS: polypropylene plastic, plasticizer, synthetic rubber, carbon black

ABSTRACT: In order to study the plasticizing properties of atactic low-molecular polypropylene, the latter was introduced into TM-70 rubber (containing 30 pts. by wt. of carbon black) in amounts from 5 to 50.0 pts. by wt. per 100 pts. by wt. of Nairit, and the physicochemical properties of the mixes obtained were measured. It was found that the polypropylene is best introduced and distributed throughout the mixture if it is first heated to 70-80°C; adhesion of the rubber mix to metal surfaces in the course of its preparation and vulcanization is thus completely eliminated. A comparative study of TM-70 Nairit vulcanizates extended with 30 pts. by wt. of carbon black and containing 20 pts. by wt. of atactic polypropylene and 5.5 pts. by wt. of chlorinated paraffin showed that at this polypropylene content the Nairit rubber mixes

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ACC NR: AP6014267

contain the lowest amount of the gel fraction; the cross-links density (M_c) of the vulcanizates decreases; the dynamic modulus E , internal friction modulus K , and heat production are reduced; the fatigue resistance in compressive deformation, tensile deformation and reverse bend is increased; and the resistance to thermooxidative processes and wear resistance are increased. It is concluded that atactic polypropylene should be used as a plasticizer for Nairit mixes. Orig. art. has: 2 tables.

SUB CODE: 11/ SUBM DATE: 28Jan64/ ORIG REF: 001

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